(19) World Intellectual Property Organization

International Bureau



. HEREN IN TITLER IN THE HEREN BERKE BERK IN HER STELL BOOK IN DE STELL BOOK IN DE STELL BOOK IN DE STELL BOOK

(43) International Publication Date 24 February 2005 (24.02.2005)

PCT

(10) International Publication Number WO 2005/017817 A1

(51) International Patent Classification⁷:

G06K 9/40

(21) International Application Number:

PCT/US2003/024525

(22) International Filing Date: 4 August 2003 (04.08.2003)

(25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): GRASS VALLEY (U.S.) INC. [US/US]; 400 Providence Mine Road, Nevada City, CA 95959 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): BEAZLEY, Todd, Martin [US/US]; 4112 N.W. 179th Place, Portland, OR 97229 (US).
- (74) Agents: TRIPOLI, Joseph, S. et al.; Thomson Licensing Inc., Suite 200, 2 Independence Way, Princeton, NJ 08540 (US).

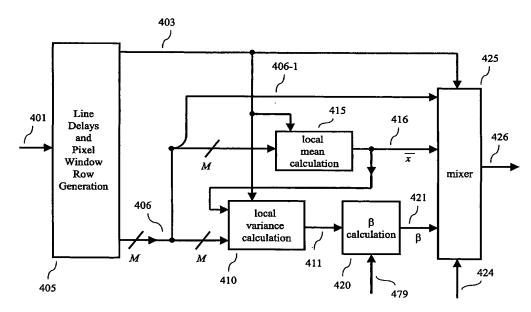
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHOD FOR REDUCING NOISE IN AN IMAGE



(57) Abstract: An image processor (Fig. 6) includes a Lee filter for processing image data to improve noise therefrom. The Lee filter includes a smoothing control signal (Fig. 6, 406). During filtering of the image data, the smoothing control signal is converted to a monochrome video signal that is provided to a display instead of, or in addition to, the filtered image data. The image projected by the display of the smoothing control signal highlights edge activity in the filtered image. This display of edge activity makes it easier to locate noisy areas in the image data and fine-tune the amount of filtering to further reduce noise present in the image data and yet leave the desired image details alone.